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ABSTRACT

While affective scales designed to measure students' attitudes toward reading have become an important part of teachers' assessments of student performance, little research has been conducted to determine whether these scales provide accurate information, nor have researchers adequately compared reading attitudes according to student achievement and socioeconomic levels. To provide evidence regarding these areas, two studies were undertaken involving more than 300 students, half from an inner city school and half from a suburban school. In the first study, the reading attitudes of the students were measured by the Estes Reading Attitude Scales and the results were compared according to grade, school, achievement level (low or average), and sex. In the second study, students who had indicated a positive attitude toward reading in the first investigation were given a polygraph test to determine if they had expressed their true attitudes. The results of the first study revealed that average achieving students and those in the inner city school had more positive attitudes toward reading than their peers. No effects were found for either grade or sex. Results of the second study revealed that half of the students in the low achieving group were not truthful in assessing their attitudes, while only one student in the average achieving group was not--with no student underestimating his or her reading attitude. (FL)

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Attitudes Toward Reading: Suburban Adolescents versus Inner-City Adolescents and Polygraph Verification

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Affective scales which have been developed to measure students' reading attitudes have become an important part of teachers' assessments of their students. Researchers have been probing the question of students' attitudes toward reading and other school subjects, primarily during the last twenty years. However, little has been done to determine whether the instruments designed to measure attitude provide truly accurate information, so this area warrants carefully controlled investigation in order to address the question of accuracy. One possible means of assessment would be the use of physiological measures, specifically a polygraph test, to assess the accuracy of expressed reading attitudes; such a use has not been previously explored. (The polygraph, however, has been used to investigate informal reading inventory scoring criteria (Ekwall, Solis, & Solis, 1973; Ekwall, 1974; Davis, 1975). Comparison of reading attitudes according to achievement and socio-economic levels also warrants further investigation, since these areas lack conclusive evidence. Two studies were therefore designed to provide evidence regarding these concerns.

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Method

Study 1 compared the reading attitudes of students according to four dimensions - grade (9 - 12), school (inner-city versus suburb), achievement level (basic or low versus regular), and sex. Students' reading attitudes were assessed by the Estes Reading Attitude Scale, which consists of twenty statements, eight positive and twelve negative. (Students taking the inventory rate each statement from A to E in terms of the degree of their feeling toward the statement). See Estes (1971), Estes and Johnstone (1974), and Dulin and Chester (1974) for a detailed description of the instrument and its validation. The inventory was administered during one class period to basic (low achieving) and regular classes from grades 9 - 12 in an inner-city school and a suburban school.

Study 2, the polygraph study, investigated whether students who indicated a positive attitude toward reading on an attitude scale were giving their true attitudes according to a polygraph test; basic students were compared with regular students, with the expectation that the basic students would be more likely to overestimate their true reading attitudes than regular students. Students were selected from a pool of volunteers who had positive attitudes toward reading according to the Estes scale. The scores of the males in the basic track were used as the basis for selection of the comparison males in the regular track. Males in the basic track reflecting the highest attitudes were automatically selected; males with scores which represented a similarly positive reading attitude were then selected from the regular track to serve as the comparison group. Thus, the two groups reflected an equally high positive attitude toward reading. Before taking the polygraph test, each student circled the letter of the statement on a seven item measure which best reflected

his attitude toward reading. Then each student was given a polygraph test to verify the truthfulness of his response. Testing was done at John Reid and Associates, a polygraph laboratory in Chicago. (See Reid and Inbau, 1977, for a description of the polygraph and the peak of tension polygraph test).

In Study 1 there were 320 subjects from grades 9 - 12, half males and half females, half from the city school and half from the suburban school, and half from basic classes and half from regular classes. In Study 2 there were 20 subjects, all males from ninth grade, half from basic classes and half from regular classes from the suburban school.

Results

For Study 1, the 4-way analysis of variance (school x grade x sex x group) revealed significant differences for the main effect of groups (basic versus regular) (F (1, 288) = 7.07, $p < .005$), with the regular students having higher Estes scores than the basic students (Regular mean = 74.71, Basic mean = 71.56) and for schools (city versus suburb) (F (1, 288) = 14.84, $p < .001$), with the city students having higher Estes scores than the suburban students (City mean = 75.42, Suburb mean = 70.86). There were no significant differences for the main effects of grade (F (3, 288) = .13, n.s.) or sex (F (1, 288) = 2.61, n.s.). For interaction effects, grade x group was significant at the .05 level (F(3, 288) = 3.74); sex x group was significant at the .05 level (F (1, 288) = 6.47; other interaction effects were not significant. Simple effects were calculated for the two significant interactions. For the grade x group interaction, regular students had significantly higher attitudes at Grades 9 and 12, but not at Grades 10 and 11. Simple effects within the regular group were not significant; simple effects within the basic group were significant. Within the basic group, Grade 11 had the

highest score, followed by Grades 10, 9, and 12. For the sex x group interaction, simple effects showed no differences between basic and regular students for males, but did show significant differences for females, with the regular females having higher scores than the basic females. Simple effects within the basic group were not significant; simple effects within the regular group were significant, with the females having higher scores than the males.

For Study 2, which was concerned with the overestimation of reading attitude as measured by the polygraph, analysis of variance revealed a significant difference between the basic and regular groups ($F(1, 18) = 4.62$, $p < .05$), with the basic group overestimating their attitude more than the regular group. (Five of the 10 students in the basic group were not truthful, and one of the 10 in the regular group was not; no student underestimated his reading attitude).

Discussion

Since affective values are becoming increasingly important in assessing school reading programs and student progress, teachers and reading clinicians should be made aware of the discrepancies which may exist between attitude inventory results and actual attitudes, especially with students in basic or lower achieving tracks. It was hypothesized for Study 2 that students in the basic track would overestimate their reading attitudes, whereas students in the regular track would indicate their reading attitudes more accurately. The results obtained from the polygraph test confirmed this hypothesis. (Certainly the small number of subjects in Study 2 would indicate caution in generalizing these findings). When considering the findings of Study 1, one can only say that it was surprising that the students from the inner-city school indicated a more positive attitude toward reading than did the suburban students. At the very least, caution should be used before accepting as

truthful expressed positive attitudes toward reading of students in low achieving classes. Reasons for the overestimation of positive reading attitudes of such students may be rooted in such a factor as wanting to give the teacher and/or parents and peers a response the student knows is considered desirable (and rewarded); additionally, in some academically oriented schools there may be a reluctance to express (or in some cases to even admit to oneself) attitudes viewed as not desirable.

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